

HEALTH STATISTICS

AUTHORIZING LEGISLATION – PHS §§ 301, 304, 306, 307, 308.

Health Statistics (\$ in 000)	FY 2003 Actual	FY 2004 Final Conference	FY 2005 Estimate	Increase/ Decrease
BA	\$0	\$0	\$0	\$0
PHS Evaluation Funds	\$125,899	\$127,634	\$149,600	\$21,966
Total	\$125,899	\$127,634	\$149,600	\$21,966
FTE	542	531	531	0

PROBLEM AND STRATEGY

CDC's health statistics provide critical information on where we stand as individuals and as a society in various areas of health. Statistics inform the public about current public health challenges and provide a foundation for understanding existing health problems. Health statistics are used to recognize emerging trends (e.g. obesity), create a basis for comparisons between population groups or geographic areas, to identify health disparities and target action, as well as for understanding how trends in health change and develop over time.

Health statistics guide national policy and support public programs and goals. Current health information is needed in all sectors of society as a prerequisite for linking risk behavior to health outcomes, targeting health messages, and for planning and evaluation of programs that can lead to improvements in health and quality of life.

Statistics make government accountable. Health statistics are used to monitor our effectiveness in addressing public health concerns. Under the Government Performance and Results Act (GPRA), these data are used in formulating strategic plans and monitoring performance and for monitoring progress on national goals, such as the leading health indicators.

As integrated, multi-purpose mechanisms, health statistics systems are consistent with the "One HHS" management initiatives to develop efficient cross-agency approaches to core HHS needs. CDC's health statistics surveys serve the needs of a broad range of programs, researchers, and policy makers in CDC, HHS, and across the health community. They are based on sound statistical methods and are conducted in an open, independent, and objective manner. Maintaining and building on HHS' existing data systems is important from a management standpoint, as these systems are more efficient than launching multiple independent systems to meet individual agency information needs.

Increased investments in CDC health statistics systems are critical to advancing our ability to measure health and guide health improvement. In a period of rapid change in health and welfare policy, medical practice, and biomedical knowledge, it is important to make the investments necessary to monitor trends so that we can assess the impact of these changes and guide future policy. However, significant data gaps exist, impeding our ability to provide data for public health policy and practice. To fill these gaps, advances must be made in existing data systems to improve and enhance data collection.

CURRENT ACTIVITIES

CDC conducts a variety of programs designed to obtain and use health statistics to support decision-making and research on health.

PROGRAM ACCOMPLISHMENTS

The following recent accomplishments exemplify the need for and use of timely, high-quality data for defining public health problems, informing policy decision-making, and monitoring public health interventions:

- **Tracking Health Insurance Coverage**—CDC provides a rapid assessment of health insurance, assessing initiatives of kids' health insurance and other key health measures; quarterly tracking data are released within six months of data collection. This capability means that measures such as health insurance coverage for children can be tracked along with changes in the economy and in federal policy, making information more valuable. CDC released data for January-March 2003, showing that the annual percent of uninsured persons decreased from 15.4 percent (41 million) in 1997 to 14.4 percent (41.1 million) in 2003. The percent of uninsured children under 18 years old declined from 13.9 percent (9.9 million) in 1997 to 9.1 percent (6.7 million) in 2003. For the first time, data were published on trends in health insurance coverage by poverty status among persons under 65 years of age from 1997-2003. From 1997 through early 2003, the percent uninsured decreased over time among poor and near poor children, but it remained stable among children who were not poor.
- **Teen Birth and Out-of-Wedlock Birth Data**—Data from the national and state vital statistics systems are used to monitor health and welfare reform goals, including reductions in teen pregnancies. The teenage birth rate dropped to an historic low of 43.0 births per 1,000 females aged 15-19 years, a decrease of 5 percent from 2001. Births to unmarried women changed very little from 2001, while the birth rate for women 40-44 years increased to the highest level since 1969 at 8.3 per 1,000.
- **Vital Statistics—Re-Engineering for the 21st Century**—CDC has made considerable progress toward a fundamental re-engineering of the systems through which birth and death statistics are produced in the U.S. This effort will result in rapid, web-based systems for these statistics, which are among the most fundamental in public health. In partnership with states and SSA, CDC has been pursuing the development of specifications, standards, and models for the new systems, and is now within striking distance of developing a working prototype for use in the states. In the interim, progress has been made in speeding the timeliness of existing systems.
- **Integrated Diet Survey**—Starting in 2002, CDC's National Health and Nutrition Examination Survey (NHANES) is serving as the sole federal survey collecting detailed diet and nutrition data under a new partnership between HHS and USDA's Agricultural Research Service. Under this new partnership, NHANES now uses USDA-developed automated interview software and USDA staff are responsible not only for maintaining this system, but for performing the data processing and editing of NHANES data necessary to produce a final data file. NHANES also now obtains information on food consumption for an additional 24-hour period from all respondents. The combined efforts of the departments are leading to an increase in data turnaround time (from USDA's processing resources) and improved data quality (from the second day of recall). Analysts in the research community can also take advantage of the full range of other nutrition-related data collected through NHANES, such as body measurement, nutritional biochemistries, and health status measures.
- **Environmental Exposure Tracking**—Data from CDC's NHANES have greatly improved our understanding of environmental exposures and their effect on human health. NHANES data are being used to determine reference (or normal) ranges of exposure to a wide range of chemicals, as well as to monitor environmental chemicals to which Americans are exposed, the extent of chemical exposures, and trends in exposure over time. CDC has expanded exposure monitoring activities to assess the exposure of the U.S. population to 116 environmental chemicals, published in the 2002 *Second National Report on Human Exposure to Environmental Chemicals*.
- **Illuminating the Problem of Access to Health Care**—Persons with a regular source of care are more likely to receive preventive services and timely treatment of illnesses and injuries. Data from CDC's National Health Interview Survey illustrate the relationship between insurance and regular access to health care. Persons with health insurance were shown to be more likely to have access to

a regular source of care, and working age adults without insurance are more than four times as likely to be without a regular source of care as those with private or public coverage.

- Understanding Trends in Emergency Care**—Data from CDC’s National Health Care Survey document trends in emergency department (ED) use, corroborating anecdotal information about overcrowded EDs and the consequent stress on the nation’s safety net. Interagency collaboration with HRSA and ASPE has led to new developments for surveys of physicians and emergency departments. These surveys have been expanded to capture information on ED staffing, hospital capacity, and readiness to handle bioterrorism or mass casualty incidents. Overcrowding can delay access to, and compromise the quality of, emergency services. Of particular concern is a rise in the annual number of visits to EDs. Between 1997 and 2001, ED visits in the U.S increased by 13 percent, from 94.9 million visits in 1997 to 107.5 million visits in 2001; this coincides with a nationwide trend toward ED closings.
- Early Childhood Health and Early Development of Young Children Data**—CDC collects data on various aspects of early childhood health and early development of young children, through data collection mechanisms such as the National Health Interview Survey, the National Health and Nutrition Examination Survey, the National Survey of Family Growth, and the National Vital Statistics System. These data systems cover the range of issues associated with child health, from family formation, pregnancy and birth outcomes, to experiences with the health care system, injuries, and the ability to learn.

The examples above are derived from data systems that produce reliable and valid information. Using a combination of PHS Evaluation Funds and reimbursements from collaborators, CDC seeks to maintain a broad-based balanced approach, optimizing available resources to meet the needs of multiple users. Information on these core systems, along with more examples of uses, is summarized in the following table. CDC’s major data systems, along with efforts to translate data into useful analyses that can be used in decision-making and research, are important national resources.

Core Data Systems	Health Issues Addressed	Example																												
<p>The National Vital Statistics System is a federal/state partnership to produce key indicators of health from all birth and death certificates. Vital statistics are among the most fundamental public health measures.</p>	<p>Examples of data from this system include:</p> <ul style="list-style-type: none"> - life expectancy - death rates and leading cause of death - prenatal care, birth weight, and infant mortality - teen births - monitoring of nonmarital births for assessing welfare reform 	<p style="text-align: center;">Trends in life expectancy at birth</p> <table border="1"> <caption>Approximate data from the life expectancy graph</caption> <thead> <tr> <th>Year</th> <th>All Races (Years)</th> <th>White (Years)</th> <th>Black (Years)</th> </tr> </thead> <tbody> <tr> <td>1990</td> <td>75.5</td> <td>76.5</td> <td>69.5</td> </tr> <tr> <td>1992</td> <td>75.5</td> <td>76.5</td> <td>69.5</td> </tr> <tr> <td>1994</td> <td>75.5</td> <td>76.5</td> <td>69.5</td> </tr> <tr> <td>1996</td> <td>76.0</td> <td>77.0</td> <td>70.5</td> </tr> <tr> <td>1998</td> <td>76.5</td> <td>77.5</td> <td>71.5</td> </tr> <tr> <td>2001</td> <td>77.5</td> <td>78.5</td> <td>72.5</td> </tr> </tbody> </table>	Year	All Races (Years)	White (Years)	Black (Years)	1990	75.5	76.5	69.5	1992	75.5	76.5	69.5	1994	75.5	76.5	69.5	1996	76.0	77.0	70.5	1998	76.5	77.5	71.5	2001	77.5	78.5	72.5
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Core Data Systems	Health Issues Addressed	Example
<p>The National Health Interview Survey (NHIS) relies on in-person interviews to monitor a broad range of health issues. The NHIS is frequently augmented by special questionnaires on selected health topics.</p>	<p>Examples of topics addressed in this survey include:</p> <ul style="list-style-type: none"> - health status and disability - insurance coverage - access to care - use of health services - immunization - health behaviors - family resources 	<p>Lack of health insurance Percent by age group with no coverage, 1998-2003</p> <p>NOTE: 2003 data are early-released findings which are reporting statistics from January through June only.</p>
<p>The National Health and Nutrition Examination Survey (NHANES) is based on sophisticated medical examination centers that move around the U.S. to obtain standardized medical information from direct physical exam, diagnostic procedures, and laboratory tests.</p>	<p>NHANES is a unique source of objective measurement of issues including:</p> <ul style="list-style-type: none"> - trends in diseases - health risk factors - unrecognized diseases - genetic influences - nutritional status - dental health - hearing and vision - environmental exposure - obesity and physical fitness - HIV and TB prevalence 	<p>Childhood obesity Prevalence of overweight among children and adolescents ages 6-19 years, for selected years</p>
<p>The National Health Care Surveys provide a picture of how health care is delivered in the U.S. by collecting data from hospitals, emergency and outpatient departments, ambulatory surgery centers, nursing homes, office-based physicians, home health agencies, hospices, and others on a periodic basis.</p>	<p>The National Health Care Surveys address measurement of:</p> <ul style="list-style-type: none"> - diagnosis and treatment - characteristics of health care providers - trends in use of services - characteristics of patients - patterns of disease - use of technology, drugs, and other treatments - emergence of alternative care sites 	<p>Decrease in antibiotic usage Rates for children and adolescents under 15 years of age</p>

The true measure of CDC's output is the use of its data for decision-making and research. To support these uses, CDC makes its data available through a variety of mechanisms. These include National Center for Health Statistics (NCHS), CDC, and HHS publications (including *Health, United States*), articles in peer-reviewed journals, electronic data sets for public use, answering thousands of direct requests from users, and providing electronic access to NCHS publications and findings via the Internet at <http://www.cdc.gov/nchs>. CDC also serves as a major resource for other agencies and the public on statistical methods, analytic techniques, and identification for users of available data sources.

Funding for Health Statistics during the last 5 years:

FY	Funding
1999	\$100,026,000
2000	\$111,802,000
2001	\$121,950,000
2002	\$126,750,000
2003	\$125,899,000

RATIONALE FOR BUDGET REQUEST

The FY 2005 estimate of \$149,600,000 for Health Statistics represents an increase of \$21,966,000 over the FY 2004 Final Conference Mark of \$127,634,000.

FY 2005 Program Increase (+\$21,966,000)

Maintaining and Transforming HHS' Core Health Statistics Capacity

CDC seeks to invest in maintaining and transforming the core capacities of NCHS, the nation's principal health statistics agency and the centerpiece of HHS' capacity to collect policy-relevant information on the nation's health. The importance of these data systems and the implications to a myriad of programs and the health sector generally have caused CDC and HHS to recognize the need for a major new investment in these programs to position these surveys to meet new challenges.

CDC has struggled to maintain the viability of its major surveys in the face of rising costs, the need for transformations of these systems to address new data needs, and the need to perform continuous upgrades in the technology and design of these surveys. These systems face the challenges of an increasingly mobile population, more complex health care system, and a more challenging agenda of health and social issues.

CDC/NCHS has been working closely with data users and partners, has undertaken systematic evaluations of alternative designs, and has made tradeoffs designed to improve the long-term performance of data systems. These reprioritizations include reductions in the scope of field operations for some data systems while these transformations are under way.

The following summary describes major elements of an investment strategy to maintain and improve HHS' core health statistics capability. Each of these investments will be pursued in close consultation with the HHS Data Council, the NCHS Board of Scientific Counselors, and the Secretary's National Committee on Vital and Health Statistics.

Preserving and Modernizing the Nation's Vital Statistics System

Vital statistics are among the most readily recognized and used data in health used to plan and monitor virtually all health programs. The FY 2005 request includes investments designed to address these challenges and to make this system faster and more responsive to a variety of public health, homeland security, and fraud-reduction efforts.

CDC works closely with states to gather complete and accurate data on births and deaths in the U.S. To sustain the vital statistics system in the face of rising costs, CDC/NCHS has made a series of one-time savings by shortening the contract cycle. In FY 2005, NCHS will fund the contracts for a 12-month period or risk significant reductions in the scope, timeliness, and quality of these critical data. The investments included in this request provide for full funding of these contracts, allowing CDC/NCHS and states to move forward with important initiatives to make birth and death data compatible with OMB standards for race and ethnicity, to update the content to reflect the national consensus standard certificates of birth and death, and to advance efforts to re-engineer the technology and business practices used across the states.

Building on this platform, CDC/NCHS and the states (along with SSA and other partners under an e-government initiative) are working together to build a re-engineered, web-based vital statistics system which would involve initial recording of birth and death certificates via electronic systems in hospitals and funeral homes, with secure, encrypted Internet transmission to state authorities and CDC/NCHS for translation into aggregate statistics. Such a system can greatly improve timeliness by eliminating manual steps and outmoded paper systems, and also yield major advances in the quality of health information by helping physicians and others more easily enter the appropriate information by building quality control checks into the system. There is some urgency to making these transformations in all states, as the comparability and completeness of the vital statistics system will begin to break down if the move to new certificates and systems takes place at different paces (and in nonstandard ways), in different states. These steps will also help ensure the viability and functionality of the system in the event of disaster or emergency, including improvements in data security and off-site data storage.

Currently, significant federal/state efforts are being made to achieve a national consensus on business practices in vital registration and statistics, and to specify these practices into technical and system specifications, data models, and other tools that will help private sector vendors build systems that reflect these national consensus approaches. These steps will reduce the cost to individual states for implementation; build greater national standardization into the process of registering births and deaths; and result in greater comparability and quality of resulting statistics. New electronic platforms have great potential for e-government applications such as those pursued by SSA in reducing benefit fraud, as well as for increased security of identity documents for preventing identity theft and illegal immigration.

With the new investment requested for FY 2005, NCHS will be able to move this process from specification to implementation, working with individual states to implement private sector vendor models – or to develop and implement nationally developed modules if no market can be demonstrated. NCHS will also be able to offer technical assistance to states pursuing re-engineering efforts, and provide for a national technology transfer capability to ensure that states without significant in-house information technology can still move forward with implementing these new systems.

Sustaining and Transforming Basic Operations for the National Health and Nutrition Examination Survey (NHANES)

An important priority is to ensure the continued field operations for the NHANES, a key element in an overall strategy for monitoring health. NHANES provides data from direct measurements, making possible measurement of risk factors such as cholesterol and blood pressure, assessment of environmental exposures and their health effect, and the extent of health problems such as diabetes. Without NHANES, we lack a detailed, objective measurement of human health and related diet, environmental, and personal risk factors.

The investment included in the FY 2005 request will provide for maintaining the full field operations for NHANES, eliminating the need for reductions in the overall scope, content, and detail from the current

survey. NCHS will continue to rely on the active scientific and funding collaboration of partners throughout government to sustain NHANES, but with this investment will be able to assure partners that the underlying survey mechanism will remain a stable platform for these collaborations. CDC/NCHS will also be able to work with partners on the development of models and alternative strategies for obtaining physical examination data for states or localities.

Maintaining and Redesigning Systems for Tracking the Health Care Delivery System

With new investments in this request, NCHS will undertake a long-range transformation of the National Health Care Survey, which provides information on the delivery of care to the population, the structure and functioning of the health care delivery system, and the changing roles of health care providers.

An important first step is to ensure that major elements of the existing survey plan are conducted on a regular cycle. Several surveys of healthcare providers (i.e., home care, ambulatory surgery centers and hospice care) have been postponed or suspended indefinitely, leaving major data gaps in a rapidly changing area. Surveys of these health care providers are comparatively inexpensive but yield important returns in information for decision-making in the public and private sectors. The resources in this request will enable CDC/NCHS to return these surveys to a more predictable and stable data collection cycle.

Multiple cross-HHS data planning efforts have pointed to the need for fundamental improvements in data on health care providers; paramount among the needs is a more comprehensive approach to data on the long-term care sector – an area of concern to federal and state policymakers. While NCHS has made progress in redesigning and fielding an improved survey of nursing homes, there remain considerable gaps in the data available for decision-making on other aspects of long term care, including home and hospice care, assisted living, and other emerging care models. New investments will provide for the redesign of existing surveys in this area, as well as efforts to conduct a broad-based inventory of health care providers, the first step toward understanding the distribution, capacity, and roles of the changing mix of health professionals, institutions, and plans. Such inventories can lead to new data on assisted living and related providers.

At this level, NCHS will move to increase the capacity of two surveys—the National Ambulatory Care Medical Care Survey and the National Hospital Ambulatory Medical Care Survey—by increasing the number of participating providers. NCHS will implement new methods and technology to better reflect the changing distribution of the population and changes in the mix and range of health care providers, to take advantage of existing records systems and especially electronic systems, and to incorporate a wider range of data items such as prescription drugs and clinical quality measures. These changes fill important data needs related to important HHS priorities, including physician reimbursement, how providers respond to financial and non-financial incentives, the capacity of the health care safety net to serve the uninsured, the capacity of emergency departments to respond to bioterrorism; patterns of prescription drug use, and health care quality.

Redesigning the Sample for the National Health Interview Survey (NHIS)

Over the past several years, NCHS and its counterparts in federal statistical agencies have been engaged in efforts to redesign the sample of households that are surveyed for the next decade. This sample redesign is needed to reflect the changing demographics identified in the decennial census, and to refocus these surveys on growing population groups. Following several years of design research and specification, the intensive field process of updating address lists, identifying sample neighborhoods, and listing households was to begin in FY 2004.

Much of this work has been suspended for the NHIS (it continues for other federal household surveys). The previous list of households was only developed to span the period 1995-2004; steps have been taken to extend the use of this sample for several additional years. It is essential that FY 2005 resources requested be invested in the work of listing a new NHIS sample for the next decade, or the survey itself will no longer be viable. The only option is to dramatically scale back the size (and therefore usefulness) of the ongoing NHIS in order to redirect funding to this essential redesign work. CDC and HHS do not want to pursue this option due to reliance on NHIS for an ongoing stream of data on health insurance, immunization status, racial and ethnic differentials, and other priority health topics.

The investment requested for FY 2005 will provide for the resumption of the process of redesigning the NHIS sample. This new sample will be put into place in calendar year 2007, and will be in place for 10 years (at which time the NHIS will be redesigned to reflect further change and movement of the U.S. population). The investment will also provide for continuing efforts to update and improve the NHIS sample to ensure it is representative of the full geographic, ethnic, and racial diversity of the US population. With this increase, the sample size of the NHIS will be restored to its full 40,000 households during the period of this redesign work.

Specific, quantitative outputs that provide examples of how NCHS will attain its broad goals include:

OUTPUT TABLE	FY 2003 Enacted	FY 2004 Final Conference	FY 2005 Estimate	FY 2005 +/- FY 2004
Monitor trends in the nation's health through high-quality data systems addressing issues relevant to policy makers.				
Number of key elements of the health care system for which data are collected	3	3	4	1
Number of communities visited by mobile examination centers from the National Health and Nutrition Examination Survey	15	15	15	0
Data systems for which significant efforts will be underway for redesign, reengineering, or transformation	1	2	4	2
Number of households interviewed in the National Health Interview Survey	32,000	TBD	40,000	TBD
Deliver timely data to the nation's health decision makers.				
Improvement of timeliness of data availability from surveys—how much more quickly data will be available to researchers and decision makers.	5%	0%	7%	7%
Disseminate health data in innovative ways.				
Improvements in data dissemination via the Internet (# new products developed for Internet per year)	1	1	1	0
Release data on high priority issues in new formats (# new reports per year)	2	2	2	0
Increase number of new users to NCHS Web site	5%	5%	5%	0

Functional Table (Dollars in Thousands)	FY 2003 Actual	FY 2004 Final Conference	FY 2005 Estimate
Health Statistics:			
-- Field Operations	\$65,197	\$66,099	\$83,663
-- Statistical Program Infrastructure	\$60,702	\$61,535	\$65,937
Total -	\$125,899	\$127,634	\$149,600